### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 30 September 2004 (30.09.2004)

**PCT** 

(10) International Publication Number WO 2004/083489 A1

- (51) International Patent Classification7:
- C25C 3/08
- (21) International Application Number:

PCT/NO2004/000070

- (22) International Filing Date: 12 March 2004 (12.03.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20031220

17 March 2003 (17.03.2003) NO

- (71) Applicants (for all designated States except US): NORSK HYDRO ASA [NO/NO]; N-0240 Oslo (NO). CRONUS ENERGY AS [NO/NO]; Per Krohgs vei 4, N-1065 Oslo (NO).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): SILJAN, Ole-Jacob [NO/NO]; Gregorius Dagssonsg. 124, N-3746 Skien (NO).
- (74) Agent: BERG, André; Norsk Hydro ASA, N-0240 Oslo (NO).

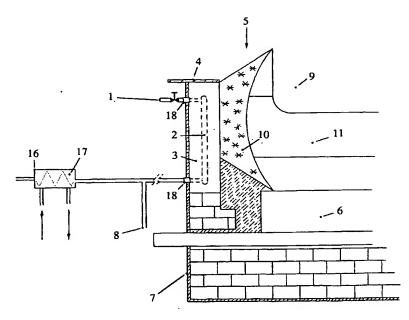
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

[Continued on next page]

(54) Title: ELECTROLYSIS CELL AND STRUCTURAL ELEMENTS TO BE USED THEREIN



(57) Abstract: The present invention concerns an arrangement of one or more structural elements (3) in a cell lining, in particular for use as a side lining in aluminium electrolysis cells (5). The present invention concerns in particular improvements to the design of and choice of materials for side linings designed to be fitted in existing electrolysis cells, plus the design and production of the stated material, where the main purpose of the material is to utilise it for energy recovery in electrolysis cells. The present invention also describes possible materials for use in the elements and production of these elements.



#### 

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.